

REMARKS

I. Introduction

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 5, 6, 9 and 10 are being cancelled without prejudice or traverse. The cancellation of claims does not constitute acquiescence in the propriety of any rejection set forth by the Examiner. Applicants reserve the right to pursue the subject matter of the canceled claims in subsequent divisional applications.

Claims 1, 8 and 13 are currently being amended.

A detailed listing of all claims that are, or were, in the application, irrespective of whether the claims remain under examination in the application, is presented, with an appropriate defined status identifier. Support for the amendments to claim 1 is found in the specification on page 5, lines 17-20, page 6, lines 24-26, and page 12, lines 24-27. Support for the amendments to claim 8 is found in the specification on page 5, lines 17-20 and page 6, lines 24-26. Support for newly added claim 26 is found in original claim 13.

Upon entry of this Amendment, claims 1-4, 7, 8, 11-13 and 26 will be pending in the application.

Because the foregoing amendments do not introduce new matter, entry thereof by the Examiner is respectfully requested.

II. Response to Issues Raised by Examiner in Outstanding Office Action

a. Issues Under Priority

The Examiner asserts that priority back to the filing date of December 15, 1994 is not possible in the instant application as copendency between applications was broken when Application 08/357,642 issued into US Patent No. 5,837,524 on November 17, 1998. Applicants respectfully disagree. However, the priority issue is moot in view of the presently claimed subject matter.

b. Issues Under Double Patenting

i. Rejection of Claims 1, 8 and 11 as Unpatentable Over Claims 11-12 of US Applicant No. 10/292,524 (the '524 application) Because of Alleged Double Patenting

Claims 1, 8 and 11 were rejected under the judicially created doctrine of obviousness-type double patenting as being allegedly unpatentable over claims 11-12 of the '524 application. Applicants respectfully traverse these rejections

Applicants have amended claim 1 to recite "[a] method of identifying one or more indolinones..." Claim 11 of the '524 application is not directed to indolinones. Instead, the '524 application is directed to a genus of agents useful for treatment of a disease or condition characterized by an abnormality in a signal transduction pathway. The genus claims of the '524 application do not anticipate or render obvious the species claims of the present invention. See *In re Kaplan*, 789 F.2d 1574 (CAFC 1986) and MPEP 2131.02 and 2144.08. Applicants respectfully request reconsideration and withdrawal of these rejections.

Additionally, Applicants have amended claim 8 to be directed to diagnosis of a connective tissue disease, Crohn's disease or ulcerative colitis. Claim 12 of the '524 application is not directed to connective tissue disease, Crohn's disease or ulcerative colitis. Instead, the '524 application is directed to the genus of diseases or conditions characterized by an abnormality in a signal transduction pathway. As discussed above, the genus claims of the '524 application do not anticipate or render obvious the species claims of the present invention. See *In re Kaplan*, 789 F.2d 1574 (CAFC 1986) and MPEP 2131.02 and 2144.08. Applicants respectfully request reconsideration and withdrawal of these rejections.

ii. Rejection of Claims 1-7 as Unpatentable Over Claims 16-34 of US Applicant No. 10/464,805 (the '805 application) Because of Alleged Double Patenting

Claims 1-7 were rejected under the judicially created doctrine of obviousness-type double patenting as being allegedly unpatentable over claims 16-34 of the '805 application. Applicants respectfully request that the Examiner hold this issue in abeyance until there are allowable claims.

iii. Rejection of Claims 1-3 and 5-7 as Unpatentable Over Claims
9-10 of US Patent No. 6,689,806 (the '806 patent)
Because of Alleged Double Patenting

Claims 1, 3 and 5-7 were rejected under the judicially created doctrine of obviousness-type double patenting as being allegedly unpatentable over claims 9-10 of the '806 patent. Applicants respectfully traverse these rejections

Applicants draw the Examiner's attention to the fact that the method of claim 1 involves measuring an interaction between PYK2 and a natural binding partner. Claims 9-10 of the '806 patent are not directed to measuring an interaction between PYK2 and a natural binding partner. Instead, they are directed to the broad genus of protein kinases. The genus claims of the '806 patent do not anticipate or render obvious the species claims of the present invention. See *In re Kaplan*, 789 F.2d 1574 (CAFC 1986) and MPEP 2131.02 and 2144.08. Applicants respectfully request reconsideration and withdrawal of these rejections.

iv. Rejection of Claims 1, 3 and 5-7 as Unpatentable Over Claims
7-8 and 13-14 of US Patent No. 6,680,335 (the '335 patent)
Because of Alleged Double Patenting

Claims 1, 3 and 5-7 were rejected under the judicially created doctrine of obviousness-type double patenting as being allegedly unpatentable over claims 7-8 and 13-14¹ of the '335 patent. Applicants respectfully traverse these rejections.

Applicants draw the Examiner's attention to the fact that the method of claim 1 (and dependent claims 3 and 5-7) involves measuring an interaction between PYK2 and a natural binding partner. Claims 7-8 and 13 of the '335 patent are not directed to measuring an interaction between PYK2 and a natural binding partner. Instead, they are directed to the broad genus of protein kinases. The genus claims of the '335 patent do not anticipate or render obvious the species claims of the present invention. See *In re Kaplan*, 789 F.2d 1574 (CAFC 1986) and MPEP 2131.02 and 2144.08. Applicants respectfully request reconsideration and withdrawal of these rejections.

¹ Applicants note that there is no claim 14 in the '355 patent.

v. **Rejection of Claims 1, 3 and 5-7 as Unpatentable Over Claims 18-19 of US Patent No. 6,514,981 (the '981 patent) Because of Alleged Double Patenting**

Claims 1, 3 and 5-7 were rejected under the judicially created doctrine of obviousness-type double patenting as being allegedly unpatentable over claims 18-19 of the '981 patent. Applicants respectfully traverse these rejections.

Applicants draw the Examiner's attention to the fact that the method of claim 1 (and dependent claims 3 and 5-7) involves measuring an interaction between PYK2 and a natural binding partner. Claims 18 and 19 of the '981 patent are not directed to measuring an interaction between PYK2 and a natural binding partner. Instead, they are directed to the broad genus of protein kinases. The genus claims of the '981 patent do not anticipate or render obvious the species claims of the present invention. See *In re Kaplan*, 789 F.2d 1574 (CAFC 1986) and MPEP 2131.02 and 2144.08. Applicants respectfully request reconsideration and withdrawal of these rejections.

c. **Claim Rejections - 35 U.S.C. § 112, Second Paragraph**

i. **Rejection of Claims 1-7 as Being Indefinite**

Claims 1-7 are rejected by the Examiner under 35 U.S.C. § 112, second paragraph as being allegedly indefinite. Applicants respectfully traverse these rejections

The Examiner asserts that claims 1-7 omit essential steps and elements. Applicants disagree with the Examiner. The term "identifying" is defined in the specification on page 5, lines 17-20. As defined in the specification, "identifying" includes measuring or detecting various properties, including...the level of interaction between a PYK2 polypeptide and a natural binding partner. The term "modulates" is also defined in the specification (paragraph spanning page 8-9 of the specification), and based on techniques known in the art, a skilled person would know how to detect or determine modulation of binding between PYK2 and a natural binding partner. Applicants also direct the Examiner's attention to section III of the specification, beginning on page 32, which further defines "modulation." Finally, on page 6, lines 24-26, an abnormal interaction is defined to be one that is "greater or less than the normal level."

As discussed above, claim 1 does not omit essential steps. However, to expedite prosecution, Applicants have amended claim 1 to recite that the method involves: “a. measuring the level of interaction between a PYK2 polypeptide and a natural binding partner, b. comparing said level to the normal interaction level, and c. identifying indolinones that are able to modulate an interaction between a PYK2 polypeptide and a natural bind partner.” By way of these amendments the rejection is mooted. Therefore, claim 1, as amended, is not indefinite. Applicants respectfully request reconsideration and withdrawal of the rejections

ii. Rejection of Claims 8-13 as Being Indefinite

Claims 8-13 are rejected by the Examiner under 35 U.S.C. § 112, second paragraph as being allegedly indefinite. Applicants respectfully traverse these rejections

The Examiner asserts that claim 8 omits essential steps. Applicants respectfully disagree with the Examiner for the same reasons discussed above with respect to claim 1. However, to expedite prosecution, Applicants have amended claim 8 to recite that the method involves: “a. measuring the level of interaction between a PYK2 polypeptide and a natural binding partner, b. comparing said level to the normal interaction level, and c. detecting a change in said interaction as an indication of a connective tissue disease, ulcerative colitis or Crohn’s disease.” By way of these amendments the rejection is mooted. Therefore, claim 8 is not indefinite. Applicants respectfully request reconsideration and withdrawal of the rejections

d. Claim Rejections - 35 U.S.C. § 102

i. Rejection of Claims 1-5, 7-8 and 9-13 as Being Anticipated by WO 96/18738

Claims 1-5, 7-8 and 9-13 are rejected by the Examiner under 35 U.S.C. § 102 (b) as being anticipated by WO 96/18738. Applicants respectfully traverse these rejections

Applicants have amended claim 1 to recite “[a] method of identifying one or more indolinones....” WO 96/18738 fails to disclose a method of identifying indolinones. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union*

Oil co. of California, 814 F.2d 628, 631 2 USPQ2d 1051, 1053 (Fed. Cir. 19870). Therefore, claim 1 (and dependent claims 2-4 and 7) is not anticipated by WO 96/18738 because WO 96/18738 fails to teach each and every element of the claimed invention.

Additionally, Applicants have amended claim 8 to recite “[a] method for diagnosis of a connective tissue disease, ulcerative colitis or Crohn’s disease....” WO 96/18738 fails to disclose a method for diagnosis of a connective tissue disease, ulcerative colitis or Crohn’s disease. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil co. of California*, 814 F.2d 628, 631 2 USPQ2d 1051, 1053 (Fed. Cir. 19870). Therefore, claim 8 (and dependent claims 11-13) are not anticipated by WO 96/18738 because WO 96/18738 fails to teach each and every element of the claimed invention. Applicants respectfully disagree and request reconsideration and withdrawal of the rejection

ii. Rejection of Claims 1-7 as Being Anticipated by Tang et al.
USP 5,880,141 (“the ‘141 patent”)

Claims 1-7 are rejected by the Examiner under 35 U.S.C. § 102 (e) as being anticipated by the ‘141 patent. Applicants respectfully traverse these rejections

Applicants draw the Examiner’s attention to the fact that the method of claim 1 involves measuring an interaction between PYK2 and a natural binding partner. The ‘141 patent does not specifically disclose measuring an interaction between PYK2 and a natural binding partner. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil co. of California*, 814 F.2d 628, 631 2 USPQ2d 1051, 1053 (Fed. Cir. 19870). Therefore, claim 1 (and dependent claims 2-4 and 7) are not anticipated by the ‘141 patent because the ‘141 patent fails to teach each and every element of the claimed invention. Applicants respectfully request reconsideration and withdrawal of the rejections

iii. Rejection of Claims 1, 3 and 7 as Being Anticipated by Hirth et al.
USP 5,763,198 (“the ‘198 patent”)

Claims 1, 3 and 7 are rejected by the Examiner under 35 U.S.C. § 102 (e) as being anticipated by the '198 patent. Applicants respectfully traverse these rejections

Applicants have amended claim 1 to recite "[a] method of identifying one or more indolinones...." The '198 patent fails to disclose a method of identifying indolinones. Additionally, the '198 patent does not specifically disclose measuring an interaction between PYK2 and a natural binding partner. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil co. of California*, 814 F.2d 628, 631 2 USPQ2d 1051, 1053 (Fed. Cir. 19870). Therefore, claim 1 (and dependent claims 2-4 and 7) are not anticipated by the '198 patent because the '198 patent fails to teach each and every element of the claimed invention. Applicants respectfully request reconsideration and withdrawal of the rejections

CONCLUSION

The present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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By 

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